

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Please rewrite claims 11 as follows.

**Listing of Claims:**

1. (previously presented) A lithium secondary battery, comprising:  
a cylindrical battery case provided with electrode caps at both end portions;  
an electrode body contained in the battery case and including a positive electrode, a negative electrode, and a separator, the positive electrode and the negative electrode being wound or laminated through the separator; and  
an elastic body disposed between said battery case and at least one of said electrode caps with a portion where said battery case contacts said elastic body being brought into press-contact to form a caulked portion to seal said battery case,  
wherein  $R_{\text{body}}$  (mm) is a diameter of a body part of said battery case and  $R_{\text{top}}$  (mm) is a diameter of said caulked portion, and  $R_{\text{body}}$  and  $R_{\text{top}}$  fulfill a relationship of  $R_{\text{body}} > R_{\text{top}}$ , and wherein a difference between said  $R_{\text{body}}$  (mm) and said  $R_{\text{top}}$  (mm) is  $\Delta R$ (mm), and  $\Delta R$  fulfills a relationship of  $\Delta R \leq 5$ (mm).
2. (previously presented) The lithium secondary battery according to claim 1, wherein said battery case comprises Al or Al alloy.
3. (canceled)

4. (previously presented) The lithium secondary battery according to claim 1, wherein said  $R_{\text{body}}$  and said  $\Delta R$  fulfill a relationship of  $(\Delta R/R_{\text{body}}) \times 100 \leq 10(\%)$ .
5. (previously presented) The lithium secondary battery according to claim 1, wherein a deformation quantity in a press-contacting direction of said press-contacted elastic body is larger than a spring-back quantity, and a press-contact force applied to said elastic body is not more than a press-contact force with an elasticity maintaining rate of said elastic body being not less than 95%.
6. (previously presented) The lithium secondary battery according to claim 1, wherein said elastic body comprises any of ethylene propylene rubber, polyethylene, polypropylene and fluororesin.
7. (previously presented) The lithium secondary battery according to claim 1, wherein at least one of said electrode caps comprises an electrolyte solution injection port.
8. (canceled)
9. (previously presented) A lithium secondary battery, comprising:  
a cylindrical battery case provided with electrode caps at both end portions; and  
an electrode body contained in the battery case and including a positive electrode, a negative electrode, and a separator, the positive electrode and the negative electrode being wound or laminated through the separator,

wherein at least one portion where said battery case is in contact with said electrode caps is brought into press-contact to form a caulked portion and is welded to execute sealing,

wherein  $R_{\text{body}}$  (mm) is a diameter of a body part of said battery case and  $R_{\text{top}}$  (mm) is a diameter of said caulked portion, and  $R_{\text{body}}$  and  $R_{\text{top}}$  fulfill a relationship of  $R_{\text{body}} > R_{\text{top}}$ , and wherein a difference between said  $R_{\text{body}}$  (mm) and said  $R_{\text{top}}$  (mm) is  $\Delta R$ (mm), and  $\Delta R$  fulfills a relationship of  $\Delta R \leq 5$ (mm).

10. (previously presented) The lithium secondary battery according to claim 9, wherein said battery case comprises Al or Al alloy.
11. (currently amended) The lithium secondary battery according to claim 9, wherein said electrode caps and ~~said external terminals~~ comprise Al or Al alloy.
12. (canceled)
13. (previously presented) The lithium secondary battery according to claim 9, wherein said  $R_{\text{body}}$  and said  $\Delta R$  fulfill a relationship of  $(\Delta R/R_{\text{body}}) \times 100 \leq 10$ (%).

Claims 14-15: (canceled)

16. (previously presented) The lithium secondary battery according to claim 9, wherein a squeezed portion is formed in the very vicinity of an outer peripheral portion of said electrode caps.

17. (previously presented) The lithium secondary battery according to claim 1, wherein battery capacity is 2 Ah or more.
18. (previously presented) The lithium secondary battery according to claim 1 to be mounted on a vehicle.
19. (original) The lithium secondary battery according to claim 18 for starting an engine.
20. (previously presented) The lithium secondary battery according to claim 18 for an electric vehicle or a hybrid electric vehicle.
21. (previously presented) A manufacturing method of a lithium secondary battery, comprising the steps of:
  - forming a battery element by joining respective electricity collection parts provided in both ends of an internal electrode body which is structured by winding a positive electrode and a negative electrode via a separator around the outer periphery of a winding core and respective internal terminal portions of two electrode caps;
  - inserting said battery element into a battery case with both ends being left open;
  - joining respective both end portions of said battery case with respective outer periphery portions of said two electrode caps;
  - injecting electrolyte solution from an electrolyte solution injection port provided in at least one electrode cap; and
  - sealing said electrolyte solution injection port.

22. (original) The manufacturing method of a lithium secondary battery according to claim 21, wherein respective both end portions of said battery case and respective outer periphery portions of said two electrode caps are joined, and at the same time, or therebefore/thereafter said electrode cap of said battery case undergoes squeezing in the very vicinity portion of an outer periphery portion.

23. (previously presented) The manufacturing method of a lithium secondary battery according to claim 21, wherein a caulking and/or welding method is used as a method for joining said battery case and said electrode caps.

24. (previously presented) The manufacturing method of a lithium secondary battery according to claim 23, wherein, at the time of said caulking operation, an elastic body is arranged between said battery case and said electrode caps.

25. (previously presented) The manufacturing method of a lithium secondary battery according to claim 24, wherein said elastic body comprises any one of ethylene propylene rubber, polyethylene, polypropylene and fluororesin.

26. (previously presented) The manufacturing method of a lithium secondary battery according to claim 23, wherein, at the time of said welding operation, a YAG laser is used as an energy source.

27. (previously presented) The manufacturing method of a lithium secondary battery according to claim 21, wherein said battery case comprises any one of aluminum and aluminum alloy.
28. (previously presented) The lithium secondary battery according to claim 9, wherein said battery case is shaped as a pipe.
29. (previously presented) The lithium secondary battery according to claim 9, wherein an entire area of tip portions of said battery case and said electrode cap are joined by said welding.